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The ionization behavior of amides in concentrated sulphuric acids. I. A new acidity function based on a set of primary amide indicators. K. Yates, J. B. Stevens, and A. R. Katritzky, 1957.
Kazmi, H. A.
Relative rates of abstraction of hydrogen from propane and *n*-butane by atomic hydrogen. H. A. Kazmi and D. J. Le Roy, 1145.
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Kiss, I.
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Fractionation of germanium isotopes in chemical reactions. H. M. Brown and H. R. Krouse, 1971.
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Kinetics and mechanisms of the thermal decomposition of acetaldehyde. II. The reaction in the presence of nitric oxide. M. Eusuf and K. J. Laidler, 1861.
Kinetics of the catalyzed hydrolysis of *p*-nitrophenyl acetate. E. Sacher and K. J. Laidler, 2404.
Lalancette, J. M.
Réaction du sulfure de bore avec quelques groupes carbonyles. S. Jerumanis and J. M. Lalancette, 1928.

La réaction du sulfure de bore avec les alcools. J. M. Lalancette, 2356.
Préparation d'esters orthothioboriques a partir du sulfure de bore. J. Brault and J. M. Lalancette, 2903.

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Lee, R. A.
Effects of chlorine and bromine on the radiolysis of gaseous HCl. R. A. Lee, R. S. Davidow, and D. A. Armstrong, 1906.

Le Fèvre, R. J. W.
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